

## **REMARKS-GENERAL**

Claims 1-10, 12-19, 21-23, 25 and 26 remain pending in the application. Claim 20 is allowable. The pending claims were rejected as allegedly unpatentable over a combination of cited references. Applicant respectfully traverses the rejections and requests reconsideration and allowance of all pending claims.

### **Discussion of Rejections under 35USC 103**

The claims 1-2, 5-10, 12 are rejected under 35 USC 102(b) as being unpatentable over Cox(GB 2,081,543) in view of Temes (US 4,644,304). Applicant respectfully traverses the rejection and requests reconsideration and allowance of the claims.

**Claim 1** recites a configurable filter. The reconfigurable filter includes “a switch control module configured to generate a pseudo random switch control signal to control the switch in the configurable element to selectively switch between two filter components, a value of the configurable element based in part on a percentage of time that the switch control signal selectively couples a first of the at least two filter components to another of the plurality of elements.” Cox and Temes, whether alone or in combination, fail to teach or suggest at least this claimed feature.

The Examiner concedes that Cox fails to teach or suggest a switch control module to generate a pseudo random switch control signal based in part on a percentage of time that the switch control signal selectively couples a first of the two filter components to the filter circuit.

The Examiner concedes that “Temes disclosed a filter (fig. 5; col 5, line 6-col 6, line 26) comprising an inherent switch control module with generate a pseudo random switch control signal (pseudo N-path signal) based in part on a percentage of time that the switch control signal selectively couples via switches S1-S10 a first of the two filter components (Co, C) to another of the plurality of elements (C1-C3, amplifier).”

Applicant respectfully traverses the rejection. Temes fails to teach or suggest a switch control module configured to generate a pseudo random switch control signal to control the switch in the configurable element to selectively switch between the filter

components, a value of the configurable element based in part on a percentage of time that the switch control signal selectively couples a first of the at least two filter components to another of the plurality of elements, as claimed.

Temes describe a filter circuit comprising an operational amplifier A1, an input capacitor C0, a feedback capacitor C, a plurality of storage capacitors C1-C3 and ten switches S1-S10 as shown in Fig. 5. The switches are respectively controlled by the timing diagram shown in Fig. 6 at the same time.

However, Temes does not disclose that a switch control module configured to generate a pseudo random switch control signal to control the switch in the configurable element to **selectively switch** between two filter components.

Furthermore, Temes does not disclose that a **value of the configurable element based in part on a percentage of time that the switch control signal selectively couples a first of the at least two filter components to another of the plurality of elements**.

Moreover, the object of the Temes' invention is to reduce and eliminate distortion in a pseudo-N-path switched-capacitor filter. And the filter in Temes' invention is immune to mismatch between the values of C, C1, C2 and C3. This kind of filter can not be used as the reconfigurable filter of the present invention in multi-standard radios.

Because both Cox and Temes fail to teach or suggest the same claim element, the combination of Cox with Temes fails to teach or suggest a feature that is absent from each individually. There is no description in either cited reference that can cure the absence of the claimed element.

Thus, claim 1 is believed to be allowable at least for the reason that Cox and Temes, whether alone or in combination, fail to teach or suggest every claimed feature. Applicant respectfully requests reconsideration and allowance of claim 1.

**Claim 25** recites an RF integrated circuit. The Examiner concedes that Cox fail to teach or suggest the switch control module configured to generate a switch control signal comprising a pseudo random bit sequence. The Examiner further does not contend that Chang teaches or suggests this claimed feature. Instead, the Examiner alleges Temes teaches or suggests this claimed feature.

As discussed above in relation to the analysis of claim 1, Temes fail to teach or suggest the claimed feature and fails, generally to describe a switch control module configured to generate a pseudo random switch control signal to control the switch in the configurable element to selectively switch between the filter components, a value of the configurable element based in part on a percentage of time that the switch control signal selectively couples a first of the at least two filter components to another of the plurality of elements.

**Claim 21** includes the feature of “selectively switching between the first switch configuration and the second switch configuration based on a pseudo random switching signal that controls the switches to the first switch configuration for the fractional switching time.” This claim 21 is believed to be allowable over Cox and Temes, either alone or in combination, for at least the reasons presented above in relation to claim 1.

**Claim 13** includes features similar to those discussed above in relation to claims 1 and 21 and is believed to be allowable at least for the reasons presented with respect to claims 1 and 21.

**Claim 26** includes the feature of “a baseband processor coupled to the output of the demodulator and configured to generate a mode select signal that controls, in part, the fractional period in which the pseudo random control signal is at the first signal level.” As previously discussed in relation to claim 1, Temes fail to teach or suggest the corresponding feature. The remaining references fail to cure the deficiencies in Temes.

**Claim 18** includes features similar to those discussed above in relation to claims 1, 13, and 21 and is believed to be allowable at least for the reasons presented with respect to claim 1, 13, and 21.

#### **Discussion of Dependent claims**

Each of claims 2-10, 12, 14-17, 19 and 22-23 depend, either directly or indirectly, from one of independent claims 1, 13, 18, or 21 and are believed to be allowable at least for the reason that they depend from an allowable base claim.

Each of the dependent claims may have individual bases for patentability beyond those discussed above in relation to the independent claims. It is not necessary to

discuss the patentable distinctions of each dependent claim because of the allowability of the base claims from which they depend.

### **CONCLUSION**

In view of the foregoing, Applicants believe claims 1-19, 21-23, 25 and 26 now pending in this application are in condition for allowance along with the already allowed claim 20. The issuance of a formal Notice of Allowance at an early date is respectfully requested.